

ABSTRACT

The objects of the present invention are: to provide a semiconductor light-emitting element mounting member with an improved effective light reflectivity in a metal film serving as an electrode layer and/or a reflective layer; to provide a semiconductor light-emitting element mounting member in which the metal layer has improved adhesion to a substrate, mechanical strength, and reliability; and to provide a semiconductor light-emitting device with superior light-emitting characteristics using the semiconductor light-emitting element mounting member described above.

A semiconductor light-emitting element mounting member (a submount 1) is made by forming on a substrate 10 metal films 11, 12 formed from Ag, Al, or an alloy containing these metals. The particle diameter of the crystal grains of the metal films 11, 12 is no more than $0.5\text{ }\mu\text{m}$ and the center-line average roughness R_a of the surface is no more than $0.1\text{ }\mu\text{m}$. In a semiconductor light-emitting device LE2, a semiconductor light-emitting element LE1 is mounted in the submount 1.